

1832. *Argus pseudoptiletus* Boisduval & Leconte. Hist. Gen. Lep. Am. Sept., p. 114, Plate 35, ff. 5 to 7, 1833. *Lycaena astenidas* (Bdv. MS.) Lucas in Sagra. Insectes. p. 613. 1857.

*cyna* Edwards. Trans. Am. Ent. Soc. ix, p. 3. 1881.

This species should not be included in the genus. The pattern is different and the genitalia are so completely different that I think it should be excluded from *Hemiargus*.

## Some new California Geometridae (Lepid.).

By W. S. WRIGHT, San Diego, California.

### *Laurentia switzeraria* n. sp.

Expanse 31 to 33 mm. General color dark smoky brown. Basal line about one-fifth out, nearly straight from costa to median vein, then a strong outward scallop to anal vein, thence straight to inner margin. Beyond is a broad light-colored band sprinkled with brown scales. The very broad mesial band is wider on the costa than on the inner margin, the center being the palest part. The inner edge is perpendicular to the inner margin of the wing; a strong outcurve occurs between vein one and the median. The outer line is scalloped throughout its entire course; a blunt tooth occurs on the subcostal; a rather prominent tooth on vein six, another between three and four, and a strong incurve to another small tooth just above vein one. From the tooth on vein six a wavy black line runs obliquely to the apex. The whole wing surface is covered with subparallel brown lines. These lines are most noticeable in the subterminal space where they are marked on the veins by dark brown scales.

Secondaries even smoky above with faint indications of cross lines at the anal angle. A faint line shows through from the under side near the middle of the wing.

Beneath, the primaries are smoky with whitish along the costa and indications of cross lines along the outer third, apex and margin. Secondaries somewhat lighter, heavily sprinkled with brown scales. There is a narrow whitish band just beyond the middle of the wing outlined on the inner edge by a row of brown dots on the veins. There are indications of faint brown lines beyond to the margin. Discal dots on both wings.

*Type*, one male, March 17, 1912, San Diego, California.  
*Paratypes*, eight males, February to March, 1912, San Diego; one male, March 12, 1912, San Diego, with L. W. Swett, two males with Geo. H. Field, San Diego, and two males in the American Museum of Natural History, New York.

The species shows a rather remarkable tendency to variation. In some specimens the defining lines are almost obsolete, the bands being defined simply by a varying depth of the ground color. In some the apical oblique line is indicated only by a few brown scales. In one specimen the defining lines are deep velvety black and extend only from the inner margin to the subcostal vein.

**L. switzeraria** n. var. **swettaria**.

A series of six males of the above species is remarkable in having a nearly white band running through the mesial brown band from costa to inner margin of the primaries. The variety is separated on the advice of Mr. L. W. Swett, to whom I dedicate it.

*Type*, one male, February 21, 1912. *Paratypes*, three males in the author's collection, two in Mr. Swett's collection, one in Mr. Field's collection and two in the American Museum of Natural History, New York.

This species has many of the characters of *Hydriomena*, and it was so placed until Mr. Swett called my attention to the fact that the antennal structure threw it out of that group. No genus could be found that seemed to fit, and we are not sufficiently acquainted with the European genera to make sure that none of them will fit, so we have decided to follow our European friends and place it in a genus that will serve for the present, or until a close study of related genera either finds the right one or makes necessary the erection of a new one. *Laurentia* seems to be the nearest genus to the *Hydriomena*-like group, so here it is placed tentatively.

**Melanolophia unipunctaria** n. sp.

Alar expanse 32 mm. Antennae of male with short blunt pectinations finely ciliated beneath. Head rufous gray. Thorax darker, speckled with black. Abdomen gray, speckled with black, showing dense patches of black scales on some of the joints dorsally.

Primaries white, evenly densely speckled with dark brown and blackish scales. Basal line dark brown, at inner quarter gently curving outward from costa to median, then straight to inner margin. A second line at the half subparallel to first line, evenly dentate and zigzag. A third line at about the two-thirds, starting from a heavy blackish

mark on the costa runs outward to subcostal then angles sharply backwards running nearly parallel with outer margin to inner edge. Just beyond this line in the costal area is a large red-brown patch before a fine black line and at the lower outer corner, about half-way between the third line and the outer margin is a small roundish white spot, quite conspicuous. Another subquadrate red-brown patch lies close to the third line near its middle in the sub-terminal area. A dark brown linear mark on costa near apex. In the submarginal space the speckles are a little thicker than elsewhere, simulating a broad marginal band. A row of blackish brown spots at base of fringe which is concolorous with the wings and faintly checkered.

Secondaries concolorous and evenly speckled. Two very faint brown lines cross the wings. Discal dot small but prominent. A narrow terminal brown line. Wings sharply angled or toothed near the center of outer margin.

Beneath, much as above except lighter with tinges of ochre. Second line showing through and continuous across both wings. Discal dots very distinct. Faint indications of a white spot near apex of primaries.

*Type*, one male, Glen Alpine Creek, Tahoe, California, June 25, 1915, by E. P. Van Duzee, in the author's collection. *Paratype*, one male, same data as type, in University of California collection.

I hesitated some time before giving this beautiful species a name, but have finally decided to do so at the risk of making a synonym. The venation and the peculiar formation of the hind tibia place it unquestionably in *Melanolophia*, and its size, together with other superficial characters, distinguish it from *M. canadaria*, to which it seems most nearly allied.

#### *Hydriomena edenata* Swett.

Some years ago Mr. George Field had from me a number of specimens of this species unknown to either of us at that time. He sent them to the late Mr. Frank Merrick for identification, and they came back labeled *H. autumnalis*. Thus they stood in our cabinets until recently, when I was led to give them some study. I found them to be *H. edenata* Swett, and also discovered that there were two perfectly good varieties in the series. I sent the entire series to Swett for examination and comparison with the types. Swett confirmed my judg-

ment as to the species being *edenata*, also as to the varieties, pointing out, however, that one of the varieties appeared to be a rediscovery of one of Packard's species, *H. (Cidaria) glaucata*. This variety I have called *olivata* n. var.

Packard says of *glaucata* "pale glaucous green," *olivata* is dark. In *glaucata* the extra discal space is quite wide on the inner margin and the black bar on this margin is absent; in *olivata* the extra discal space is very narrow and the black bar is evident on the inner margin. The fore wings are elongated in my variety, while in *glaucata*, as figured in Packard, the fore wings are more rounded, as in the European *ruberata*, of which it may be simply a green variety. In view of these differences I feel that the new name is justified.

**Hydriomena edenata, n. var. olivata.**

*Olivata* is separable from the typical *edenata* by the following differences; basal area concolorous, narrowly linear first line, which is also different in its course, running in long even sigmoidal curves from costa to the middle of the inner margin, there being no sign of an angle on the subcostal vein: bar on inner margin lacking or but faintly indicated; no contrasting colors but rather a dull mottled appearance brought about by the rather indistinct breaking up of the bands, none of which is distinctly traceable. The whole surface of the primaries is suffused with a distinct olive shade. The hind wings show a very definite brown extra discal line and a faint rather diffused line in the middle of the space beyond. In one specimen the mesial space is a little lighter and nearly immaculate.

*Types*, three males, San Diego, California, collected by the author, one of which is in the Swett collection.

**Hydriomena edenata, n. var. pallidata.**

The second group of specimens, under the name of *pallidata*, is separable on the course of the first line which is straight from costa to inner margin; the absence of the black bar and the fact that the "usual wide irregular bluish band" of *edenata* has become, with the corresponding bluish band in the subterminal space, a light watery gray and is the most prominent marking on the primaries. All the lines are broken up, and more or less linear. The whole aspect is as though the specimens were very much faded.

The *type* is in the author's collection, *paratypes* in the Swett and Marloff collections.